



MODIFICATION INSTRUCTIONS

for the

KODAK MINILOADER 2 PLUS LOW VOLTAGE, MODELS STAND-ALONE, M35-M & 480RA

Service Codes 3419, 3420 & 3421

MODIFICATION No. M04

Type 1 REQUIRED

PURPOSE:

To improve the reliability of the MINILOADER by fitting upgraded SOFTWARE. The details of the changes are documented in the instructions.

IMPORTANT NOTE

Ensure you order the correct MODIFICATION KIT for the MACHINE TYPE and LANGUAGE required.

IMPORTANT: Only qualified service personnel should install this modification!

SERIAL NUMBERS:	Model Stand-Alone	(3419)	6001 - 6002
	Model M35-M	(3420)	5001 - 5040
	Model 480RA	(3421)	7001 - 7003

INSTALLATION TIME: Approximately 30 minutes.

SPECIAL TOOLS: None

PARTS AVAILABILITY: November 1994.

PARTS REQUIREMENT:

For Models M35-M & 480 RA	(ENGLISH/GERMAN/ITALIAN/FRENCH)	29054591
For Models M35-M & 480 RA	(ENGLISH/SPANISH/PORTUGUESE/SWEDISH)	29054592
For Models M35-M & 480 RA	(ENGLISH/NORWEGIAN)	29054593
For Model Stand-Alone	(ENGLISH/SWEDISH)	29054594

PARTS LIST

PART NO.	DESCRIPTION	QUANTITY
29054591	MODIFICATION KIT MODELS M35-M & 480RA	1
THE KIT CONTAINS:		
30022690	EPROM VERSION P1.2 DATE 20/7/94 (ENG/GER/ITA/FRE)	1
MA3420-M04	MODIFICATION INSTRUCTIONS	1
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29054592	MODIFICATION KIT MODELS M35-M & 480RA	1
THE KIT CONTAINS:		
30022691	EPROM VERSION P1.2 DATE 20/7/94 (ENG/SPA/PORT/SWE)	1
MA3420-M04	MODIFICATION INSTRUCTIONS	1
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29054593	MODIFICATION KIT MODELS M35-M & 480RA	1
THE KIT CONTAINS:		
30022692	EPROM VERSION P1.2 DATE 20/7/94 (ENG/NORW)	1
MA3420-M04	MODIFICATION INSTRUCTIONS	1
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29054594	MODIFICATION KIT MODEL STAND-ALONE	1
THE KIT CONTAINS:		
30023393	EPROM VERSION S1.2 DATE 20/7/94 (ENG/SWE)	1
MA3420-M04	MODIFICATION INSTRUCTIONS	1
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CAUTION



This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

PLEASE NOTE

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MODIFICATION INSTRUCTIONS

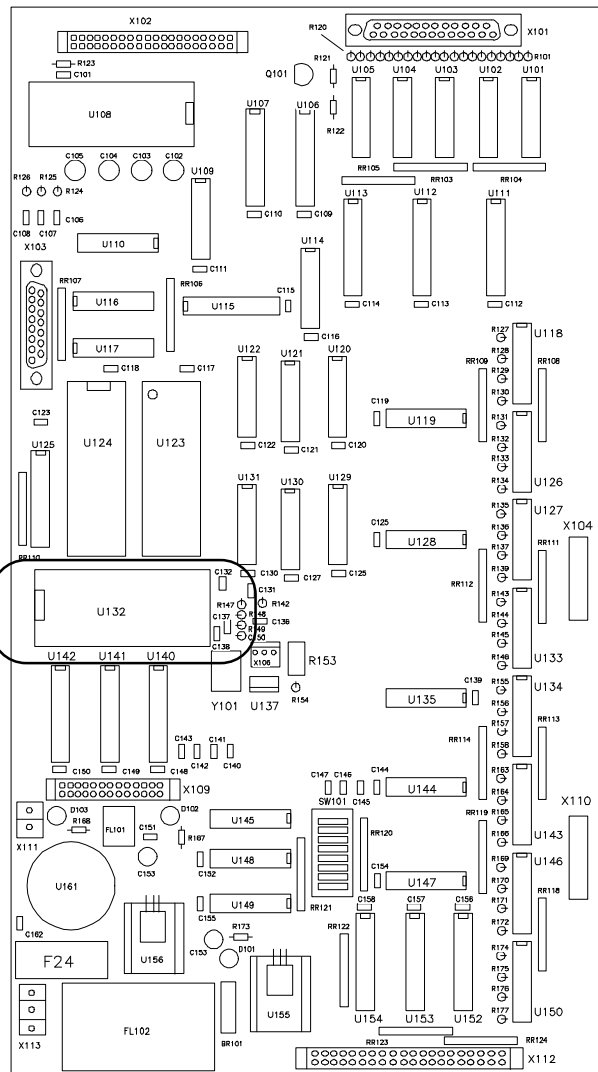
1. Ensure you have the correct MODIFICATION KIT with an EPROM that contains your local language.
2. Remove the top cover from the MINILOADER and enter PROGRAMMING MODE - SWITCH SW 302 on PCB 403 up. Press S 16 on PCB 403 until the PARAMETER SETTING MODE is reached. On the TABLE below make a note of all existing PARAMETERS. Note that PARAMETER P7 and P8 values are not important as they are used in TEST MODE only. Make a PRINTOUT and send it to your COUNTRY SPECIALIST.

PARAMETER	PURPOSE	PROGRAM DEFAULT	ACTUAL VALUE
P1	CASSETTE AIR BLOW PAUSE	1.5 Sec	
P2	MAGAZINE FILM SEPARATION BLOW PAUSE	1.5 Sec	
P3	MULTIPLE FILM LOAD DETECTION PAUSE	0.5 Sec	
P4	GAP BETWEEN FILMS	0 Sec	
P5	TILT PAUSE	2.0 Sec	
P6	CASSETTE WAITING TIME	0 Sec	
P7	CASSETTE REVERSE AND CLOSING TIME	0.2 Sec	Test Mode Only
P8	AIR BLOW CASSETTE OPENING 18x24	Step 030	Test Mode Only
P9	AIR BLOW CASSETTE OPENING 24x30	Step 030	
P10	DISPLAY BRIGHTNESS	1	
P11	MULTIPLE FILM CHECK 18 x 24	Step 155	
P11	MULTIPLE FILM CHECK 24 X 30	Step 148	

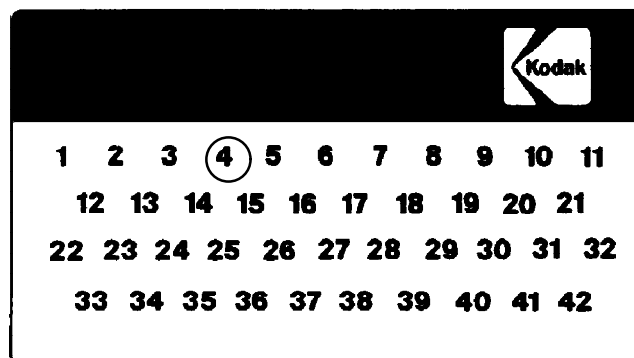
3. Switch off the MINILOADER, and remove the FRONT PANEL. When removing the FRONT PANEL make sure all LEADS are carefully disconnected.
4. Pull forwards the PCB 401/207 ASSEMBLY and remove the plastic PROTECTION COVER from the PCB'S.
5. Using the DRAWING on PAGE 4 identify the EPROM U132 on PCB 401. Using ESD precautions, remove the old EPROM and replace it with the EPROM in the MODIFICATION KIT.

PCB 401

EPROM



6. Push the PCB ASSEMBLY back into position and replace the plastic PROTECTION COVER.
7. Refit the FRONT PANEL making sure all LEADS are connected including the GROUND LEAD.
8. Enter PROGRAMMING MODE and set the DATE, TIME and SERIAL NUMBER. Select the required LANGUAGE. Reset the PARAMETERS to the values that you noted in STEP 1.
9. Enter STATISTICS MODE - SWITCHES SW 301 and 302 on PCB 403 up. Delete the FILM COUNTS - press S 15, S 4 and S 5 sequentially within 4 seconds. Delete the MALFUNCTION STATISTICS - press S 15, S 2 and S 8 sequentially within 4 seconds. Make another PRINTOUT to check all the STATISTICS have been zeroed. If necessary, repeat the operation.
10. Circle MODIFICATION M04 on the MODIFICATION LABEL and test the MINILOADER with all FILM sizes.



The new SOFTWARE corrects the following errors.

1. If ERROR CODE 24 occurs the message is displayed very briefly then, "MACHINE READY" is displayed. When a CASSETTE is entered, "ERROR CODE 24" then displays again.
2. If an empty CASSETTE is inserted, and a FILM is not picked up from the MAGAZINE, the machine does not advise that the cassette was empty.
3. The 8x10 ENDSTOP position was not checked before a cycle.
4. When the 18 x 24 MAGAZINE is nearly empty, and the size is changed to 24 x 30 the message advising of the size change is missing. Sometimes the ORANGE LIGHT also shows short flashes.
5. Also with 18 x 24 MAGAZINE nearly empty, when a CASSETTE is entered and the MAGAZINE has to return to the rear position sometimes the MAGAZINE fails to fully reach the rear causing a, "MAGAZINE 18 x 24 NOT IN CORRECT POSITION" malfunction (plus ORANGE LIGHT pulses as in 4).
6. In 8 x 10 mode if the FILM is not picked up from the MAGAZINE at the first attempt, but is picked up on a subsequent attempt an error message, "FILM NOT PICKED UP FROM CASSETTE - CASSETTE IS LOADED WITH NEW FILM - CHECK CASSETTE IN DARKROOM" is erroneously displayed.
7. In every cycle, the MAGAZINE CARRIAGE MOTOR should give a short pulse to ensure the MAGAZINE is in the correct position - this was not happening.
8. If a MAGAZINE is EMPTY or NEARLY EMPTY and the MAGAZINE remains open at the end of the cycle the error, "MAGAZINE OPEN" is not displayed, only the RED LIGHT and BUZZER.
9. In 8 x 10 mode, if a incorrect CASSETTE is inserted, the display, "WRONG CASSETTE" is given for a few seconds, then is erroneously replaced with, "FILM NOT PICKED UP FROM CASSETTE - CASSETTE LOADED WITH NEW FILM - CHECK CASSETTE IN DARKROOM".
10. If an error condition exists (RED LIGHT on), the coils of RELAYS K702 & K703 that control the speed of the CARRIAGE and CAM MOTORS remain energised until the error is cleared - this is incorrect.
11. PROCESSOR INTERFACE only. In 24 x 30 SERIAL MODE, sometimes if SERIAL MODE is stopped for an EMERGENCY CASSETTE the message, "SIZE CHANGE" without a size stated appears and the size change does not happen.
12. PROCESSOR INTERFACE only. If SERIAL MODE was selected and you attempted to change the size, the message is given that the size has changed, but in actual fact nothing has happened. The correct procedure is to cancel SERIAL before selecting a different size and this now happens.
13. In TEST MODE the messages, "MAGAZINE 24 x 30 MOTOR FORWARD", and, "MAGAZINE 18 x 24 MOTOR FORWARD" are transposed.
14. The PRINTOUT showed the date incorrectly as YEAR - MONTH - DAY instead of DAY - MONTH - YEAR.



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